

WHAT IS CLAIMED IS:

1. A switching circuit comprising:

N (N is an integer of at least 2) switching circuit units, in which first to fourth switching elements are connected in a loop in this order, having a DC power source, one end of which is connected to a node between said first and fourth switching elements, and the other end of which is connected to a node between said second and third switching elements, wherein

a node between said first and second switching elements in said switching circuit unit on the n-th stage (n is from 2 to N) is connected to a node between said third and fourth switching elements in said switching circuit unit on the (n-1)th stage; a node between said first and second switching elements in said switching circuit unit on the first stage is connected to one terminal of a load, and a node between said third and fourth switching elements in said switching circuit unit on the N-th stage is connected to the other terminal of the load, and

said first and third switching elements in all of said switching circuit units are switched on or off in response to a first on-off control signal, and said second and fourth switching elements in all of said switching circuit units are switched on or off in response to a second on-off control signal, which is in a complementary relation with said first on-off control signal.

2. The switching circuit according to claim 1, wherein said DC power source in each of said switching circuit units comprises respective secondary windings in a transformer having one primary winding to which AC power is applied and N secondary windings, and rectifying and smoothing means for rectifying and smoothing induced electromotive voltage of the secondary windings.
3. The switching circuit according to either one of claim 1 or claim 2, wherein all or a part of said switching circuit units is detachably provided.
4. A digital power amplifier comprising:
a PWM modulation circuit which converts an input analog signal to a positive-phase or negative-phase PWM signal, and has a configuration for compensating a conversion characteristic corresponding to a feedback signal;
a switching circuit having a plurality of switching elements for controlling the power supply from a DC power source to a load in a forward direction or a reverse direction by switching;
a driver section having a first driver to which said positive-phase PWM signal is input, and a second driver to which said negative-phase PWM signal is input, which respectively on-off drive a predetermined switching element in said switching circuit,

corresponding to said positive-phase or negative-phase PWM signal; and

5 a feedback circuit which feeds back the power supply condition to said load to said PWM modulation circuit,

wherein a switching circuit according to any one of claims 1 to 3 is employed as said switching circuit, and an isolation driver which electrically isolates said switching circuit from said PWM modulation circuit side
10 is employed as said first and second drivers in said driver section.